

ABSTRACT

A problem to be solved is to provide a method of forming domain inverted regions of short period in a ferroelectric single crystal in a controllable time period of application of voltage and an optical wavelength conversion element using the same.

A solving means of it solves the problem by forming (i) a control layer having a larger defect density D_{cont1} than the defect density D_{ferro} of a ferroelectric single crystal ($D_{ferro} < D_{cont1}$) or forming (ii) a control layer having a lower degree of order of lattice points than the degree of order of lattice points of the ferroelectric single crystal on a face perpendicular to the direction of polarization of the ferroelectric single crystal in the ferroelectric single crystal.